



FLWEMS Paramedic Medication Information For:

TORADOL

(Ketorolac)

Description

Ketorolac (kee-toe-ROLE-ak) is used to relieve moderately severe pain, usually pain that occurs after an operation or other painful procedure. It belongs to the group of medicines called nonsteroidal anti-inflammatory drugs (NSAIDs). Ketorolac is not a narcotic and is not habit-forming. It will not cause physical or mental dependence, as narcotics can. However, ketorolac is sometimes used together with a narcotic to provide better pain relief than either medicine used alone.

Ketorolac has side effects that can be very dangerous. The risk of having a serious side effect increases with the dose of ketorolac and with the length of treatment. Therefore, ketorolac should not be used for more than 5 days. Before using this medicine, you should discuss with your doctor the good that this medicine can do as well as the risks of using it.

Ketorolac is available only with your doctor's prescription, in the following dosage forms:

Parenteral

- Injection (U.S. and Canada)

Before Using This Medicine

In deciding to use a medicine, the risks of taking the medicine must be weighed against the good it will do.

This is a decision you and your doctor will make. For ketorolac, the following should be considered:

Allergies—Tell your doctor if you have ever had any unusual or allergic reaction to ketorolac or to any of the following medicines:

- Aspirin or other salicylates
- Diclofenac (e.g., Voltaren)
- Diflunisal (e.g., Dolobid)
- Etodolac (e.g., Lodine)
- Fenoprofen (e.g., Nalfon)
- Floctafenine (e.g., Idarac)
- Flurbiprofen (e.g., Ansaid)
- Ibuprofen (e.g., Motrin)
- Indomethacin (e.g., Indocin)
- Ketoprofen (e.g., Orudis)
- Meclofenamate (e.g., Meclomen)
- Mefenamic acid (e.g., Ponstel)
- Nabumetone (e.g., Relafen)
- Naproxen (e.g., Naprosyn)
- Oxaprozin (e.g., Daypro)
- Phenylbutazone (e.g., Butazolidin)
- Piroxicam (e.g., Feldene)
- Sulindac (e.g., Clinoril)
- Tenoxicam (e.g., Mobiflex)
- Tiaprofenic acid (e.g., Surgam)
- Tolmetin (e.g., Tolectin)

Also tell your health care professional if you are allergic to any other substances, such as foods, preservatives, or dyes.

Pregnancy—Studies on birth defects with ketorolac have not been done in pregnant women. However, it crosses the placenta. There is a chance that regular use of ketorolac during the last few months of pregnancy may cause unwanted effects on the heart or blood flow of the fetus or newborn baby. Ketorolac has not been shown to cause birth defects in animal studies. However, animal studies have shown that, if taken late in pregnancy, ketorolac may increase the length of pregnancy, prolong labor, or cause other problems during delivery.

Breast-feeding—Ketorolac passes into the breast milk and may cause unwanted effects in nursing babies. It may be necessary for you to use another pain reliever or to stop breast-feeding during treatment. Be sure that you have discussed the use of this medicine with your doctor.

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Children—Studies on this medicine have been done only in adult patients, and there is no specific information comparing use of ketorolac in children up to 16 years of age with use in other age groups.

Older adults—Stomach or intestinal problems, swelling of the face, feet, or lower legs, or sudden decrease in the amount of urine may be especially likely to occur in elderly patients, who are usually more sensitive than younger adults to the effects of ketorolac. Also, elderly people are more likely than younger adults to get very sick if the medicine causes stomach problems. Studies in older adults have shown that ketorolac stays in the body longer than it does in younger people. Your doctor will consider this when deciding on how much ketorolac should be given for each dose and how often it should be given.

Other medicines—Although certain medicines should not be used together at all, in other cases two different medicines may be used together even if an interaction might occur. In these cases, your doctor may want to change the dose, or other precautions may be necessary. When you are using ketorolac, it is especially important that your health care professional know if you are taking any of the following:

- Anticoagulants (blood thinners) or
- Cefamandole (e.g., Mandol) or
- Cefoperazone (e.g., Cefobid) or
- Cefotetan (e.g., Cefotan) or
- Heparin or
- Plticamycin (e.g., Mithracin) or
- Valproic acid (e.g., Depakene)—Use of any of these medicines together with ketorolac may increase the chance of bleeding
- Aspirin or other salicylates or
- Other medicine for inflammation or pain, except narcotics—The chance of serious side effects may be increased
- Lithium (e.g., Lithane) or
- Methotrexate (e.g., Mexate)—Higher blood levels of lithium or methotrexate and an increased chance of side effects may occur
- Probenecid (e.g., Benemid)—Higher blood levels of ketorolac and an increased chance of side effects may occur

Other medical problems—The presence of other medical problems may affect the use of ketorolac. Make sure you tell your doctor if you smoke tobacco or if you have any other medical problems, especially:

- Alcohol abuse or
- Diabetes mellitus (sugar diabetes) or
- Edema (swelling of face, fingers, feet or lower legs caused by too much fluid in the body) or
- Kidney disease or
- Liver disease (severe) or
- Systemic lupus erythematosus (SLE)—The chance of serious side effects may be increased
- Asthma or
- Heart disease or
- High blood pressure—Ketorolac may make your condition worse.
- Bleeding in the brain (history of) or
- Hemophilia or other bleeding problems—Ketorolac may increase the chance of serious bleeding
- Bleeding from the stomach or intestines (history of) or
- Colitis, stomach ulcer, or other stomach or intestinal problems (or history of)—Ketorolac may make stomach or intestinal problems worse. Also, bleeding from the stomach or intestines is more likely to occur during ketorolac treatment in people with these conditions

Proper Use of This Medicine

For patients taking *ketorolac tablets*:

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- To lessen stomach upset, ketorolac tablets should be taken with food (a meal or a snack) or with an antacid.

- Take this medicine with a full glass of water. Also, do not lie down for about 15 to 30 minutes after taking it. This helps to prevent irritation that may lead to trouble in swallowing.

For patients using *ketorolac injection*:

- Medicines given by injection are sometimes used at home. If you will be using ketorolac at home, your health care professional will teach you how the injections are to be given. You will also have a chance to practice giving injections. Be certain that you understand exactly how the medicine is to be injected.

For safe and effective use of this medicine, do not use more of it, do not use it more often, and do not use it for more than 5 days. Using too much of this medicine increases the chance of unwanted effects, especially in elderly patients.

Ketorolac should be used only when it is ordered by your doctor for treating certain kinds of pain. Because of the risk of serious side effects, do not save any leftover ketorolac for use in the future, and do not share it with other people.

Dosing—

The dose of ketorolac will be different for different patients. *Follow your doctor's orders or the directions on the label.* The following information includes only the average doses of ketorolac. *If your dose is different, do not change it unless your doctor tells you to do so.*

For *injection* dosage form:

For pain:

Adults (patients 16 years of age and older)—15 or 30 mg, injected into a muscle or a vein four times a day, at least 6 hours apart. This amount of medicine may be contained in 1 mL or in one-half (0.5) mL of the injection, depending on the strength. Some people who do not need more than one injection may receive one dose of 60 mg, injected into a muscle.

Children up to 16 years of age—Use and dose must be determined by your doctor.

Missed dose—

If you have been directed to use this medicine according to a regular schedule, and you miss a dose, use it as soon as possible. However, if it is almost time for your next dose, skip the missed dose and go back to your regular dosing schedule. Do not double doses.

Storage—

To store this medicine:

- Keep out of the reach of children.
- Store away from heat and direct light.
- Do not store ketorolac tablets in the bathroom, near the kitchen sink, or in other damp places. Heat or moisture may cause the medicine to break down.
- Keep the injection form of ketorolac from freezing. Do not store it in the refrigerator.
- Do not keep outdated medicine or medicine no longer needed. Be sure that any discarded medicine is out of the reach of children.

Precautions While Using This Medicine

Taking certain other medicines together with ketorolac may increase the chance of unwanted effects. The risk will depend on how much of each medicine you take every day, and on how long you take the medicines together. Therefore, do not take acetaminophen (e.g., Tylenol) together with ketorolac for more than a few days, unless otherwise directed by your medical doctor or dentist. Also, *do not take any of the following medicines together with ketorolac, unless your medical doctor or dentist has directed you to do so and is following your progress:*

- Aspirin or other salicylates
- Diclofenac (e.g., Voltaren)
- Diflunisal (e.g., Dolobid)
- Etodolac (e.g., Lodine)
- Fenoprofen (e.g., Nalfon)

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- Floctafenine (e.g., Idarac)
- Flurbiprofen (e.g., Ansaid)
- Ibuprofen (e.g., Motrin)
- Indomethacin (e.g., Indocin)
- Ketoprofen (e.g., Orudis)
- Meclofenamate (e.g., Meclomen)
- Mefenamic acid (e.g., Ponstel)
- Nabumetone (e.g., Relafen)
- Naproxen (e.g., Naprosyn)
- Oxaprozin (e.g., Daypro)
- Phenylbutazone (e.g., Butazolidin)
- Piroxicam (e.g., Feldene)
- Sulindac (e.g., Clinoril)
- Tenoxicam (e.g., Mobiflex)
- Tiaprofenic acid (e.g., Surgam)
- Tolmetin (e.g., Tolectin)
- Zomepirac (e.g., Zomax)

Ketorolac may cause some people to become dizzy or drowsy. If either of these side effects occurs, *do not drive, use machines, or do anything else that could be dangerous if you are not alert.*

Side Effects of This Medicine

Along with its needed effects, a medicine may cause some unwanted effects. Although not all of these side effects may occur, if they do occur they may need medical attention.

Stop using this medicine and check with your doctor immediately if any of the following side effects occur:

Bleeding from the rectum or bloody or black, tarry stools; bleeding or crusting sores on lips; blue lips and fingernails; chest pain; convulsions; fainting; shortness of breath, fast, irregular, noisy, or troubled breathing, tightness in chest, and/or wheezing; vomiting of blood or material that looks like coffee grounds. Also, check with your doctor as soon as possible if any of the following side effects occur:

Swelling of face, fingers, lower legs, ankles, and/or feet; weight gain (unusual)

Bruising (not at place of injection); high blood pressure; skin rash or itching; small, red spots on skin; sores, ulcers, or white spots on lips or in mouth

Abdominal or stomach pain, cramping, or burning (severe); bloody or cloudy urine; blurred vision or other vision change; burning, red, tender, thick, scaly, or peeling skin; cough or hoarseness; dark urine; decrease in amount of urine (sudden); fever with severe headache, drowsiness, confusion, and stiff neck or back; fever with or without chills or sore throat; general feeling of illness; hallucinations (seeing, hearing, or feeling things that are not there); hearing loss; hives; increase in amount of urine or urinating often; light-colored stools; loss of appetite; low blood pressure; mood changes or unusual behavior; muscle cramps or pain; nausea, heartburn, and/or indigestion (severe and continuing); nosebleeds; pain in lower back and/or side; pain, tenderness, and/or swelling in the upper abdominal area; painful or difficult urination; pale skin; puffiness or swelling of the eyelids or around the eyes; ringing or buzzing in ears; runny nose; severe restlessness; swollen and/or painful glands; swollen tongue; thirst (continuing); unusual tiredness or weakness; yellow eyes or skin

Other side effects may occur that usually do not need medical attention. These side effects may go away during treatment as your body adjusts to the medicine. However, check with your doctor if any of the following side effects continue or are bothersome:

Abdominal or stomach pain (mild or moderate); bruising at place of injection; diarrhea; dizziness; drowsiness; headache; indigestion; nausea

Bloating or gas; burning or pain at place of injection; constipation; feeling of fullness in abdominal or stomach area; increased sweating; vomiting

Other side effects not listed above may also occur in some patients. If you notice any other effects, check with your doctor.

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Additional Information

Once a medicine has been approved for marketing for a certain use, experience may show that it is also useful for other medical problems. Although these uses are not included in product labeling, ketorolac is used in certain patients with the following medical conditions:

Pain after surgery in children

Other than the above information, there is no additional information relating to proper use, precautions, or side effects for these uses.

END OF INFORMATION – NOTHING FOLLOWS